

Amendments to the Specification:

Please add the following subtitles to the specification: before paragraph 0001, please insert the subtitle "Background of the Invention"; before paragraph 0006, please insert the subtitle "Summary of the Invention"; before paragraph 0017, please insert the subtitle "Brief Description of the Drawings"; and before paragraph 0022, please insert the subtitle "Detailed Description of Preferred Embodiments."

Please amend paragraph 0008 with the following changes:

Preferably, the channel is provided upon a reverse face of the integrated circuit assembly and the temperature sensing elements and ~~heat-sensing-the~~ heating element are provided upon a front face of the integrated circuit assembly. Most preferably the heating element is located above the midpoint of the channel and there are two temperature sensing elements each being positioned substantially equidistant between the heating element and ends of the channel.

Please amend paragraph 0012 with the following changes:

Preferably the integrated circuit assembly is mounted on a lead frame, holes in the lead frame coinciding with each end of the channel, the lead frame otherwise lying across the ~~mouth~~ length of the channel so as to form a wall of a ~~passageway~~ the channel. Most preferably ~~there are slots provided in the lead frame~~ has slots alongside ~~[[that]]~~ the portion of the lead frame ~~forming that forms~~ a wall of the ~~passageway~~ channel, the slots extending through the thickness of the lead frame, and act[[ing]] to thermally isolate the ~~passageway~~ channel from the rest of the lead frame. Preferably the slots do not extend past the holes in the lead frame at either end of the ~~passageway~~ channel, thus allowing the bulk of the lead frame to act as a heat sink for the ends of the ~~passageway~~ channel, thus helping to maintain them at or close to the ambient temperature.

Please amend paragraph 0014 with the following changes:

According to a second aspect of the present invention there is provided a method of manufacturing an encapsulated calorimetric flow meter comprising the following steps: providing an integrated circuit assembly incorporating a fluid flow channel, at least two temperature sensing elements operative to measure the temperature in different regions of the channel, and a heating element located in between the temperature sensing elements to heat a region of the channel; applying a quantity of gel to the integrated circuit ~~such as to~~ cover at least each end of the channel, thereby forming a gel-covered assembly; inserting the gel-covered assembly into a cavity of a moulding tool ensuring that at least a portion of the gel is in contact with a surface of the cavity; introducing a plastic mould compound into the cavity so as to encapsulate the gel-covered assembly except for the portion where the gel is in contact with the cavity surface ; and removing the gel-covered assembly from the cavity, whereby there is an opening defined in the plastic mould compound encapsulating the gel-covered assembly at each end of the channel, thus allowing fluid to flow through the channel after the gel has been removed.